

CLAIMS

(1) A water separation device characterized in that a water separation membrane is provided on a rising surface between a lower end and an upper end of a tubular member, and a water dispersion organic solvent is filtrated by said water separation membrane to thereby separate water.

(2) The water separation device according to Claim 1, wherein said tubular member is one that the lower end is closed, and an inlet for the water dispersion organic solvent is provided at the upper part.

(3) The water separation device according to Claim 2, wherein said tubular member is positioned within an outer tube having a discharge outlet of an organic solvent after separation of water at the lower part.

(4) The water separation device according to Claim 3, wherein the upper end of the tubular member is formed to be a large diameter, and said tubular member is fitted in said outer tube and stopped at the upper end of the outer tube at said large diameter portion.

(5) The water separation device according to Claims 1 to 4, wherein the side surface or bottom surface of said tubular member is formed as a slope toward lower end which converges on an extreme end, and said water separation membrane is secured to an opening formed in said slope.

(6) The water separation device according to Claims 5, wherein a plurality of outer tubes as recesses are formed in a plate at intervals, and said tubular member is fitted in said outer tubes

(7) The water separation device according to Claims 1, wherein said water separation membrane is a hydrophobic and organic solvent insoluble membrane filter.

(8) The water separation device according to Claims 7, wherein said membrane filter is made of Teflon (Registered Trademark).

(9) The water separation device according to Claims 8, wherein the pore

size of said membrane filter is 0.1 to 2 μ m.

(10) The water separation device according to Claims 1, wherein said tubular member and said outer tube are formed of metal, glass or plastics.

(11) A water separation method characterized in that a water dispersion organic solvent is filtrated by the water separation membrane provided on a rising surface between a lower end and an upper end of a tubular member to thereby separate water.

(12) The water separation method according to Claim 11, wherein said tubular member is formed so that the lower end is closed and an inlet for the water dispersion organic solvent is provided at the upper part, and the tubular member is positioned within an outer tube having a sample discharge outlet at the lower part, and the organic solvent after separation of water is caused to pass through from the inside to the outside of said tubular member.

(13) The water separation method according to Claim 12, wherein the side surface or the bottom surface of said tubular member are formed as a slope toward lower end which converges on an extreme end, and said water separation membrane is secured to an opening formed in said slope.

(14) The water separation method according to Claim 11, wherein said water separation organic solvent is a reaction liquid in organic chemical reaction or a processed liquid after reaction.